

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Christopher Milton Mathew Franco, et al. **Examiner:** Thane E. Underdahl

Serial No.: 10/563,637 **Art Unit:** 1651

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For: A METHOD AND AGENTS FOR
IMPROVING PLANT PRODUCTIVITY
INVOLVING ENDOPHYTIC ACTINOMYCETES
AND METABOLITES THEREOF **Dated:** March 20, 2009

Confirmation No: 4137

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

In accordance with 37 C.F.R §§1.97 and 1.98, it is requested that the following references, which are also listed on the attached Form PTO-1449, be made of record in the above-identified case.

CERTIFICATE OF ELECTRONIC FILING

I hereby certify that this correspondence is being deposited with the United States Patent & Trademark Office via Electronic Filing through the United States Patent and Trademark Office e-business website.

Dated: March 20, 2009


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1. Franco C. M. M. et al., "Harnessing in endophytic actinomycetes of cereal crops", *Phytopathology* 92(6): S27 (2002), Abstract, XP-001538374;
2. EMBL Accession No. AY148073, "Streptosporangiaceae bacterium EN2 16S ribosomal RNA gene, partial sequence", Coombs J. T. et al., (2002) XP002486241;
3. Nejad P. et al., "Endophytic Bacteria Induce Growth Promotion and Wilt Disease Suppression in Oilseed Rape and Tomato", *Biological Control* 18: 208-215 (2000);
4. Shimizu M. et al., "Studies on Endophytic Actinomycetes (1) *Streptomyces* sp. Isolated from Rhododendron and Its Antifungal Activity", *J. Gen. Plant Pathol.* 66: 360-366 (2000);
5. Taechowisan T. et al., "Isolation of endophytic actinomycetes from selected plants and their antifungal activity", *World Journal of Microbiology & Biotechnology* 19: 381-385 (2003);
6. Strobel G. A., "Endophytes as sources of bioactive products", *Microbes and Infection* 5: 535-544 (2003);
7. de Araujo J. M. et al., "Isolation of endophytic actinomycetes from roots and leaves of maize (*Zea mays L.*)", *Brazilian Archives of Biology and Technology* 43(4): 447-451 (2000);
8. Hallmann J., "Plant Interactions with Endophytic Bacteria", *Biotic Interactions In Plant-Pathogen Associations*, Cabi Publishing pages 87-119 (2001);
9. Hallmann J. et al., "Bacterial endophytes in agricultural crops", *Can. J. Microbiol.* 43: 895-914 (1997);
10. Coombs J. T., "The Isolation and Characterisation of Endophytic Actinomycetes from Wheat (*Triticum aestivum*)", *Thesis* 295 pages (2004);
11. Bonner T. I. et al., "Reduction in the Rate of DNA Reassociation by Sequence Divergence", *J. Mol. Biol.* 81: 123-125 (1973);
12. Conn V. M. et al., "Analysis of the Endophytic Actinobacterial Population in the Roots of Wheat (*Triticum aestivum L.*) by Terminal Restriction Fragment Length Polymorphism and Sequencing of 16S rRNA Clones", *Applied and Environmental Microbiology* 70(3): 1787-1794 (2004);

13. Crawford D. L. et al., "Isolation and Characterization of Actinomycete Antagonists of a Fungal Root Pathogen", *Applied and Environmental Microbiology* 59(11): 3899-3905 (1993);
14. Flett F. et al., "High efficiency intergeneric conjugal transfer of plasmid DNA from Escherichia coli to methyl DNA-restricting streptomycetes", *FEMS Microbiology Letters* 155: 223-229 (1997);
15. Glickmann E. et al., "A Critical Examination of the Specificity of the Salkowski Reagent for Indolic Compounds Produced by Phytopathogenic Bacteria", *Applied and Environmental Microbiology* 61(2): 793-796 (1995);
16. Mazodier P. et al., "Intergeneric Conjugation between Escherichia coli and Streptomyces Species", *Journal of Bacteriology* 171(6): 3583-3585 (1989);
17. Roget D. K. et al., "Assessment of Suppression To *Rhizoctonia Solani* In A Range Of Soils Across Se Australia", *Proceedings of the 1st Australasian Soilborne Disease Symposium Magarey (eds)* 4 pages (1999); and
18. Sun J. et al., "Green fluorescent protein as a reporter for spatial and temporal gene expression in *Streptomyces coelicolor* A3(2)", *Microbiology* 145: 2221-2227 (1999).

References numbers 1-10 were cited in a Supplementary European Search Report dated October 11, 2008 received from the European Patent Office. Applicants are submitting copies of reference numbers 1-18 as required by 37 C.F.R. §1.98(a)(2)(i) and (ii), together with a copy of the Search Report. The relevance of reference numbers 1-10 has been described in the Search Report.

Inasmuch as this Information Disclosure Statement is being submitted in accordance with the schedule set out in 37 C.F.R. § 1.97(b), no statement or fee is required.

Respectfully submitted,



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